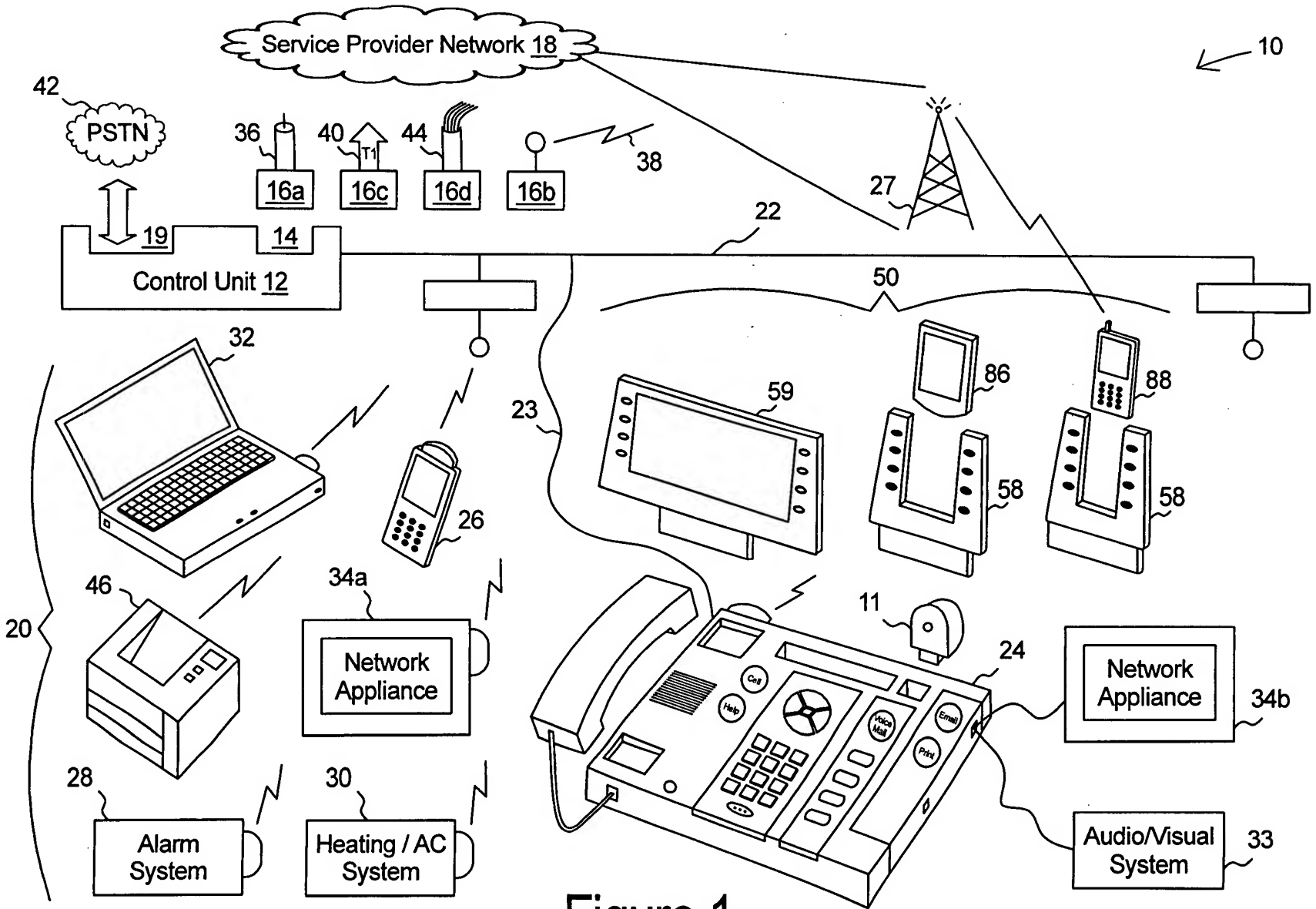
Service Provider Network 18
10
42
PSTN
36
40
T1
44
38
16a
16c
16d
16b
27
22
19
14
Control Unit 12
50
32
59
86
88
23
26
58
58
46
34a
20
Network Appliance
11
24
Network Appliance
34b
28
30
Alarm System
Heating / AC System
Audio/Visual System
33

Figure 1

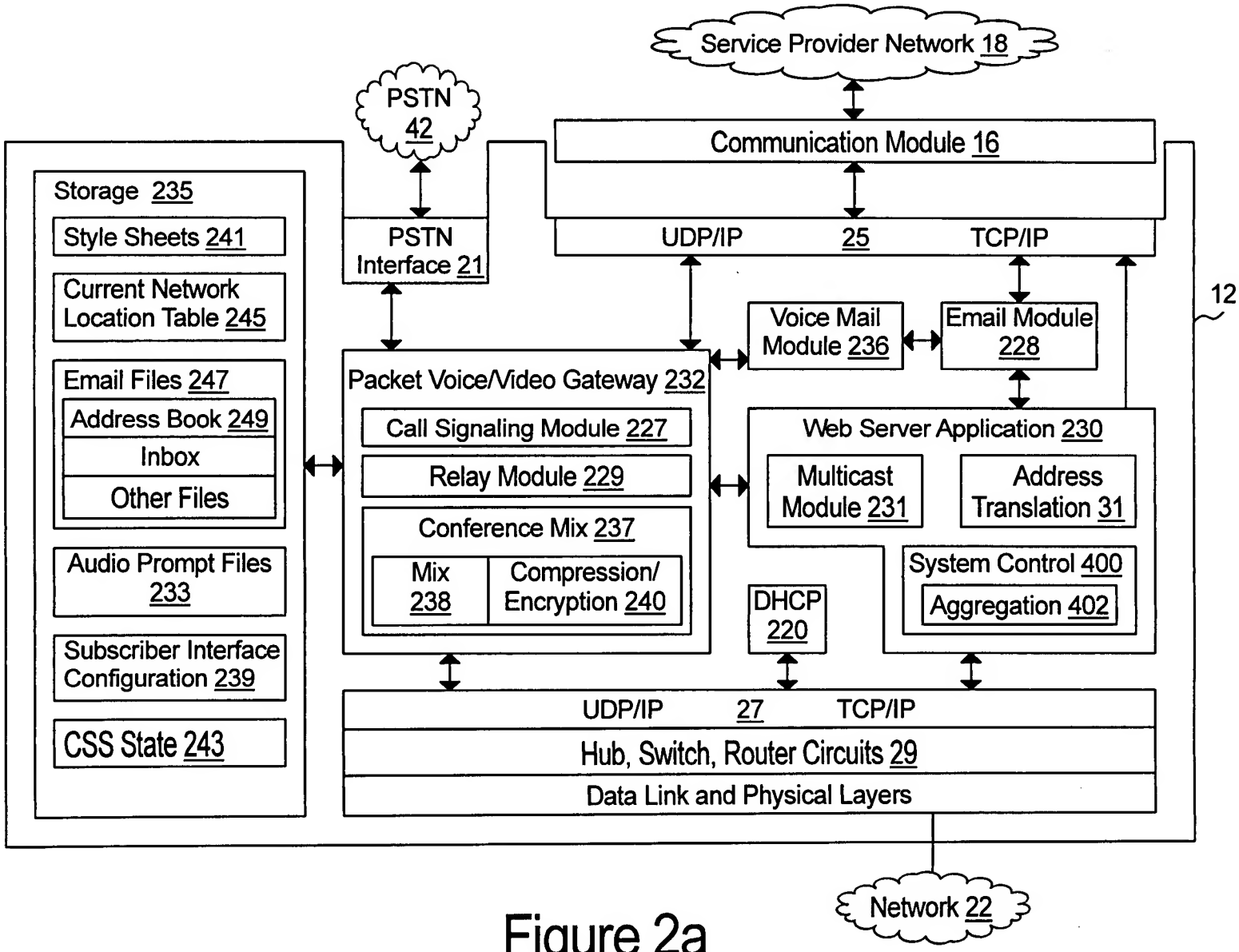
Service Provider Network 18
PSTN 42
Communication Module 16
Storage 235
Style Sheets 241
Current Network Location Table 245
Email Files 247
Address Book 249
Inbox
Other Files
Audio Prompt Files 233
Subscriber Interface Configuration 239
CSS State 243
PSTN Interface 21
UDP/IP 25 TCP/IP
12
Voice Mail Module 236
Email Module 228
Packet Voice/Video Gateway 232
Call Signaling Module 227
Relay Module 229
Conference Mix 237
Mix 238
Compression/ Encryption 240
Web Server Application 230
Multicast Module 231
Address Translation 31
System Control 400
Aggregation 402
DHCP 220
UDP/IP 27 TCP/IP
Hub, Switch, Router Circuits 29
Data Link and Physical Layers
Network 22

Figure 2a

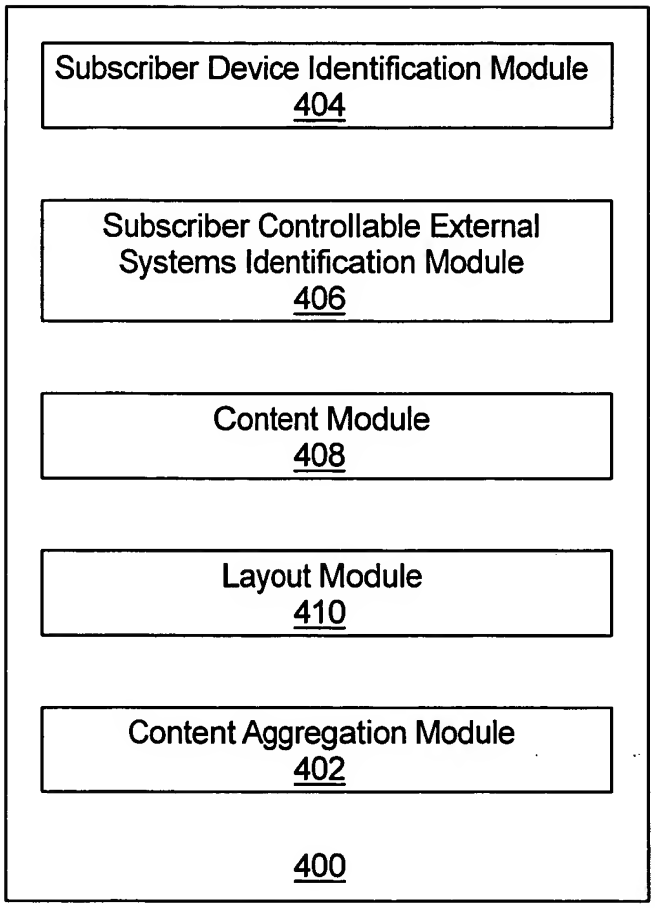
Subscriber Device Identification Module
404
Subscriber Controllable External Systems Identification Module
406
Content Module
408
Layout Module
410
Content Aggregation Module
402
400

Figure 2b

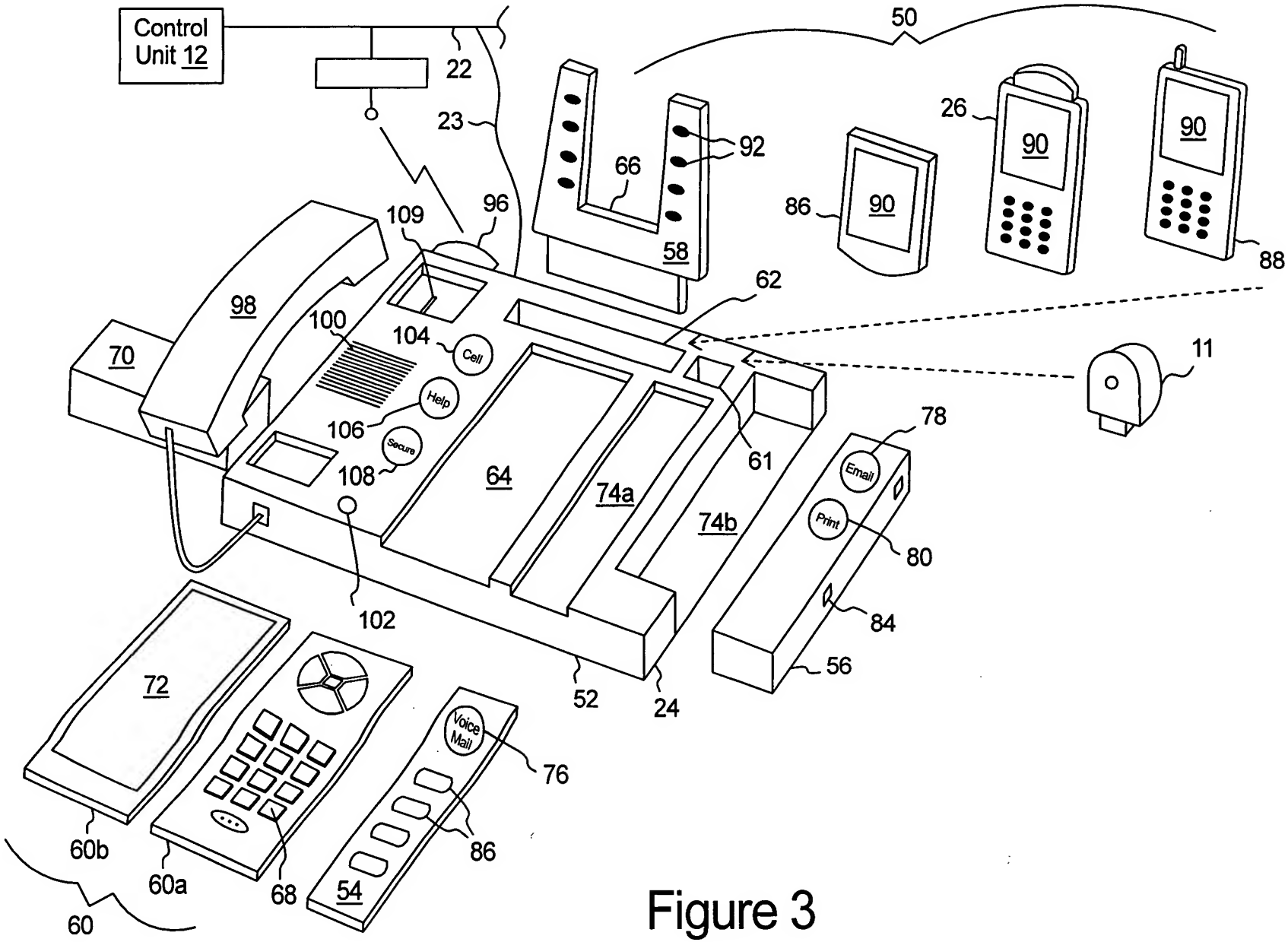
Control Unit 12
22
23
50
66
92
58
26
90
86
90
90
88
109
96
62
98
100
104
Cell
70
Help
106
Secure
108
64
74a
74b
61
11
78
Email
Print
80
84
56
102
52
24
72
Voice Mail
76
86
60b
60a
68
54
60

Figure 3

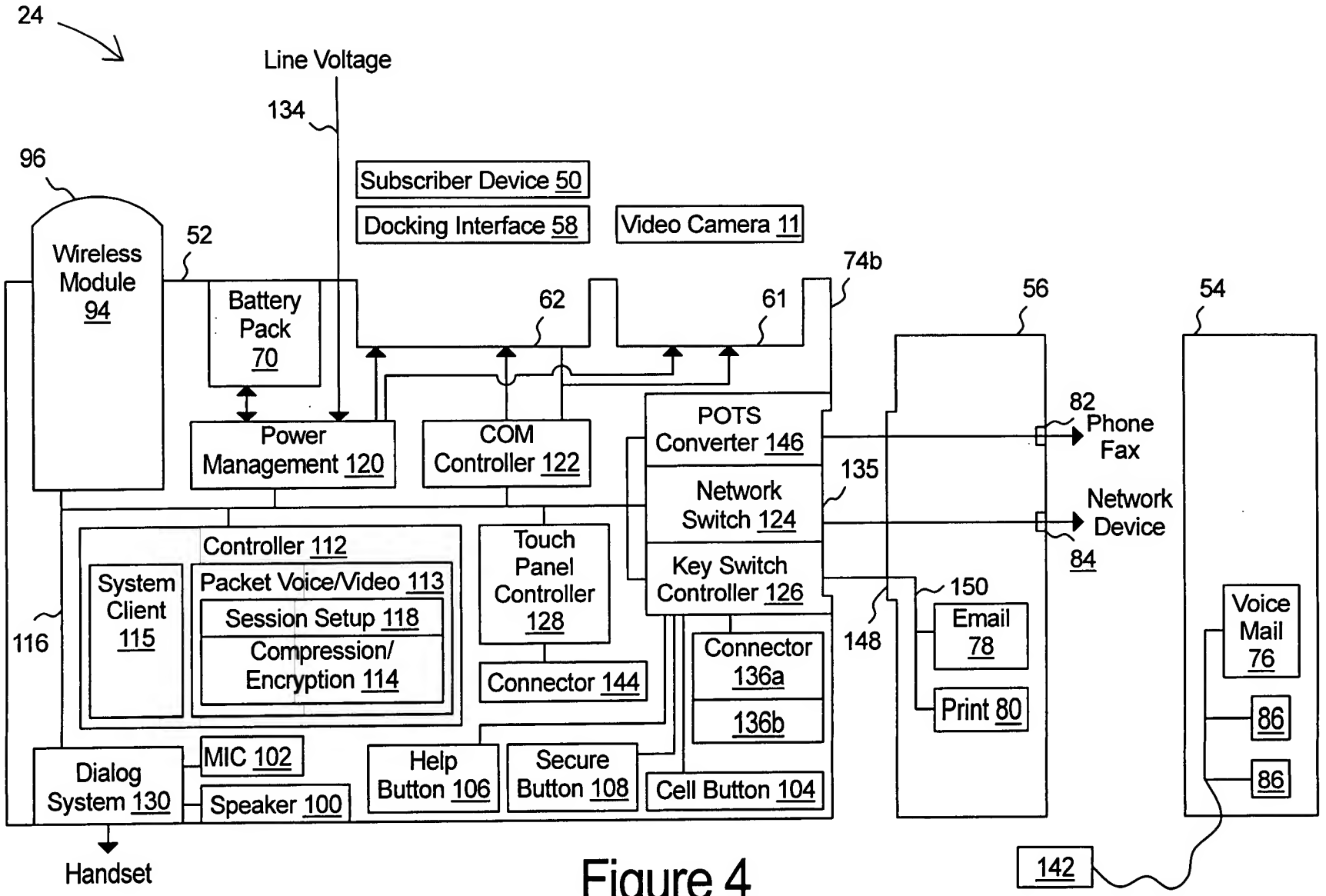
24
Line Voltage
134
96
Subscriber Device 50
Docking Interface 58
Video Camera 11
Wireless Module 94
52
Battery Pack 70
62
61
74b
56
54
82
Phone Fax
Power Management 120
COM Controller 122
POTS Converter 146
135
Network Switch 124
Network Device
84
Controller 112
System Client 115
Packet Voice/Video 113
Session Setup 118
Compression/ Encryption 114
Touch Panel Controller 128
Key Switch Controller 126
150
Email 78
Print 80
Voice Mail 76
86
86
116
148
Connector 144
Connector 136a
136b
Dialog System 130
MIC 102
Speaker 100
Help Button 106
Secure Button 108
Cell Button 104
Handset
142

Figure 4

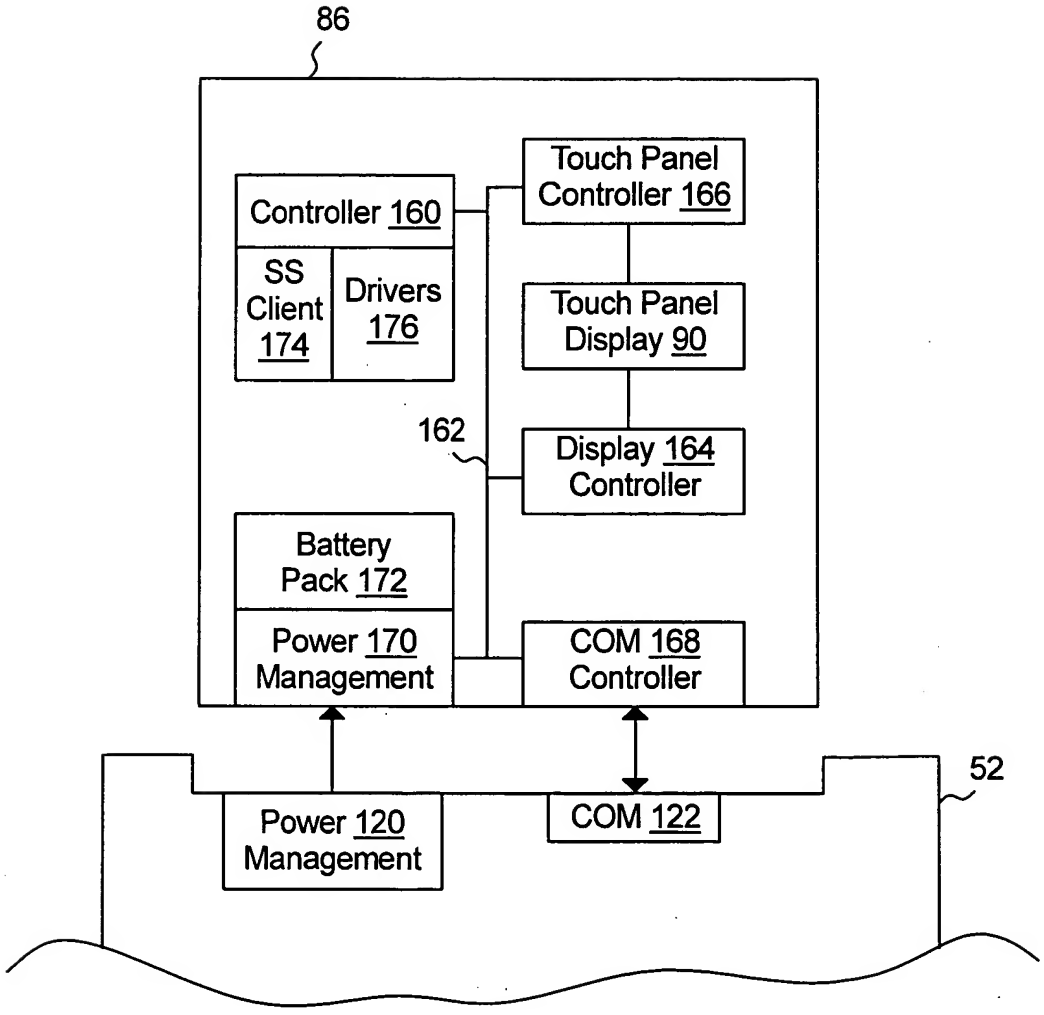
86
Touch Panel Controller 166
Controller 160
SS Client 174
Drivers 176
Touch Panel Display 90
162
Display 164 Controller
Battery Pack 172
Power 170 Management
COM 168 Controller
52
Power 120 Management
COM 122

Figure 5

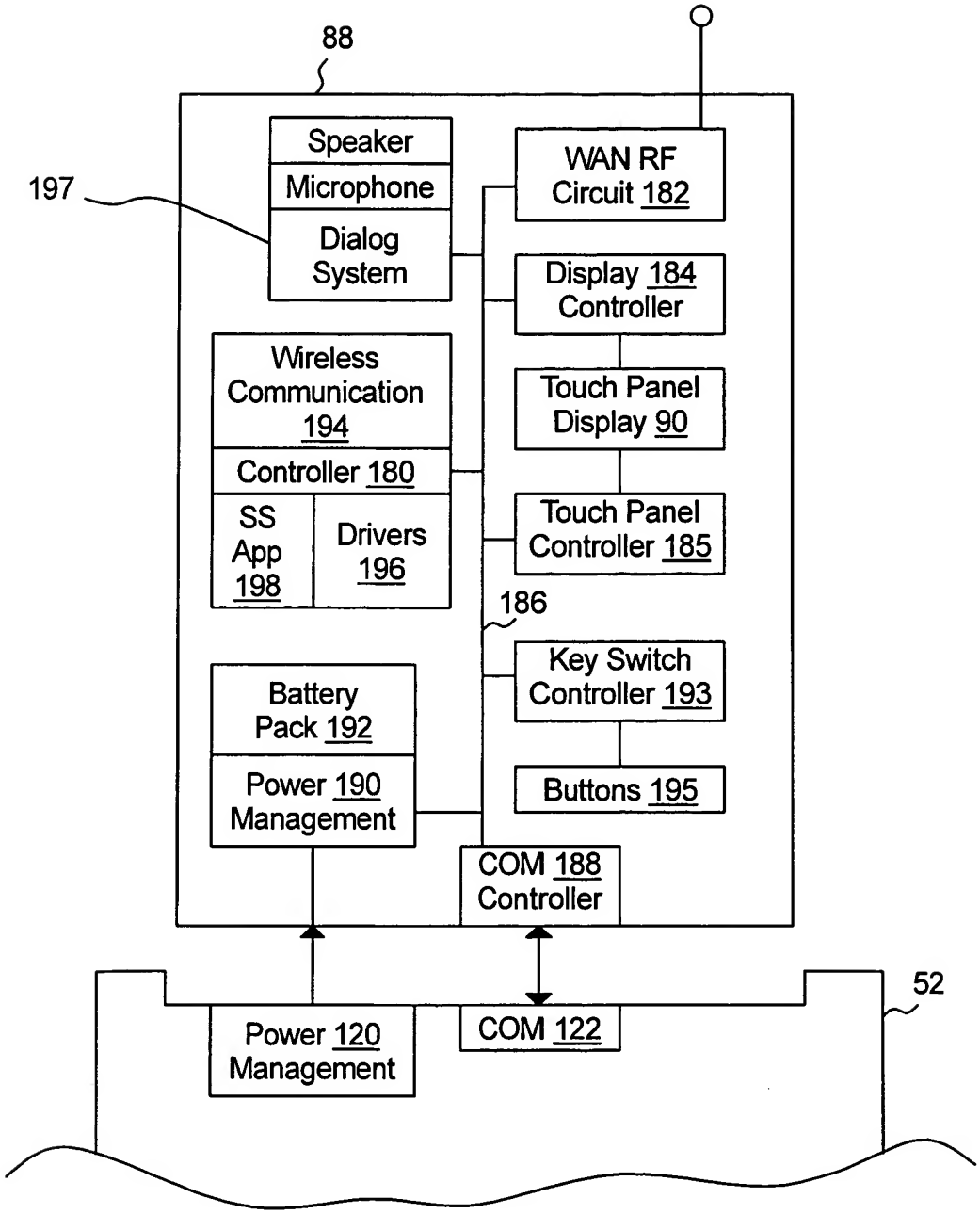
88
197
Speaker
Microphone
Dialog System
WAN RF Circuit 182
Display 184 Controller
Wireless Communication 194
Controller 180
SS App 198
Drivers 196
Touch Panel Display 90
Touch Panel Controller 185
186
Key Switch Controller 193
Battery Pack 192
Power 190 Management
Buttons 195
COM 188 Controller
52
Power 120 Management
COM 122

Figure 6

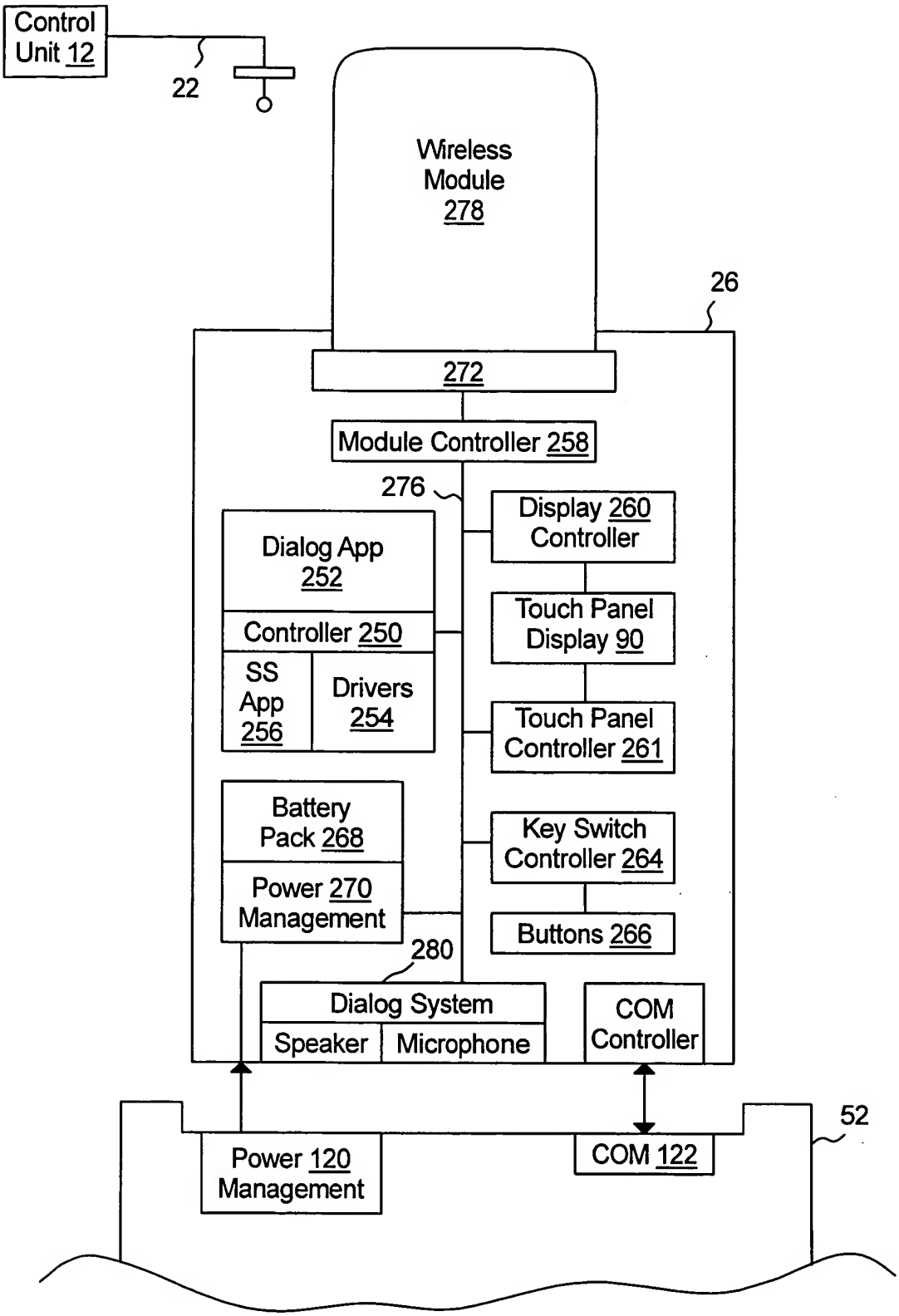
Control Unit 12
22
Wireless Module 278
26
272
Module Controller 258
276
Dialog App 252
Controller 250
SS App 256
Drivers 254
Display 260 Controller
Touch Panel Display 90
Touch Panel Controller 261
Battery Pack 268
Power 270 Management
Key Switch Controller 264
Buttons 266
280
Dialog System
Speaker
Microphone
COM Controller
52
Power 120 Management
COM 122

Figure 7

245

Subscriber Identifier
246

Current Network Address Table

251

Subscriber ID	Subscriber Name	Subscriber Device ID Code	Current Network Address	External System Access
1234	Bob	001	192.168.abc.xyz	A
1235	Chris	002	192.168.def.uvw	B
1236	Marvin	003	Open	A,B
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

Figure 8a

249

Managed Eternal System(s)

External System	External System Name	Accessible System Parameters
A	Alarm System	xxxxx
B	Audio / Visual System	xxxxx
•	•	
•	•	
•	•	
X	Heating / AC System	turn heat off, turn ac off, adjust heat . . .

Figure 8b

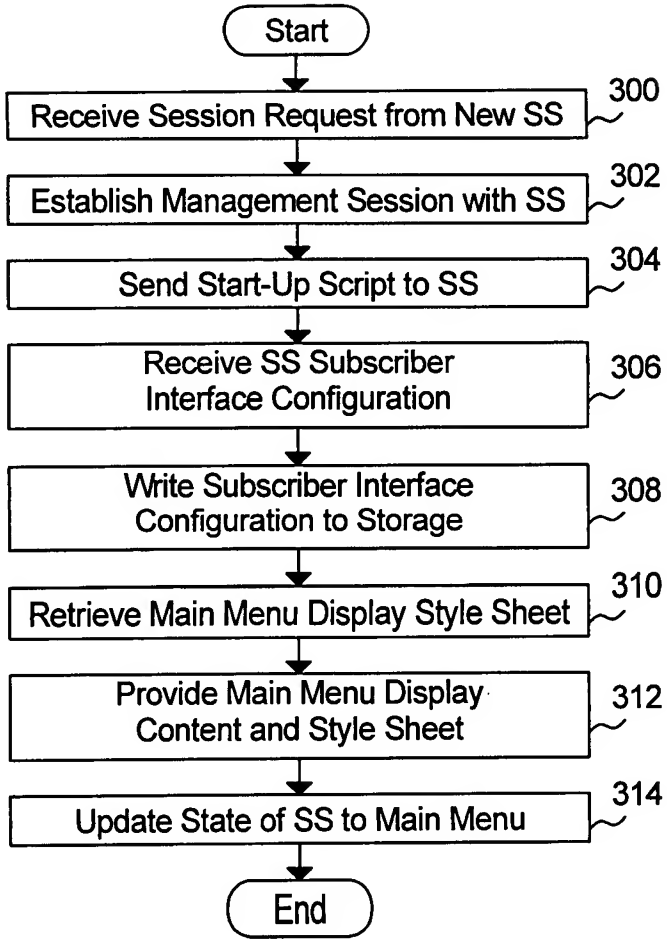

Figure 9a

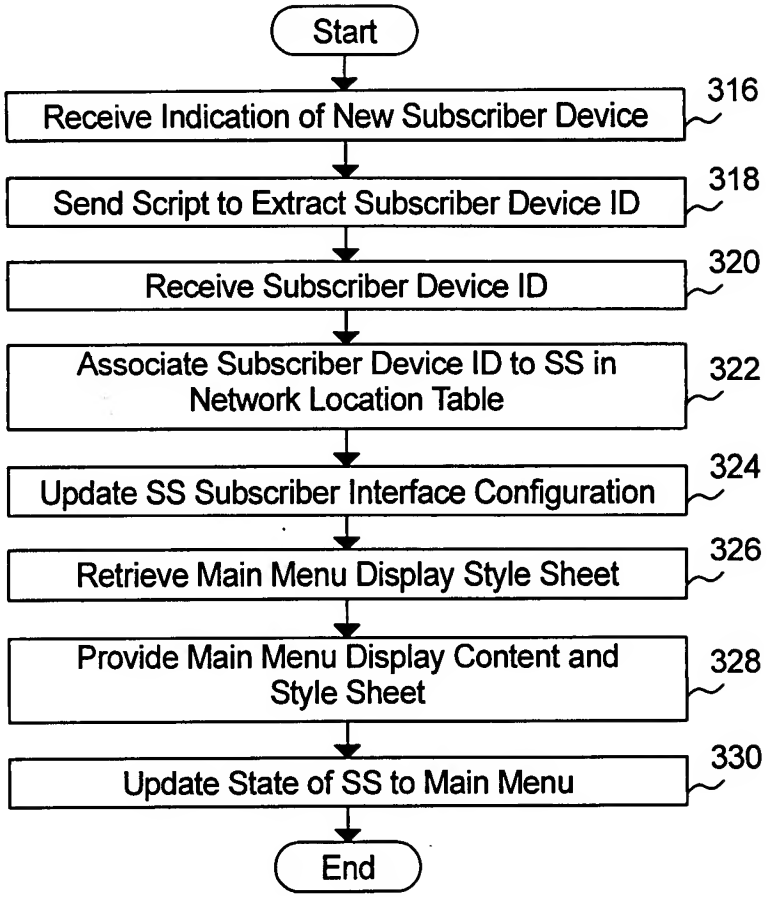

Figure 9b

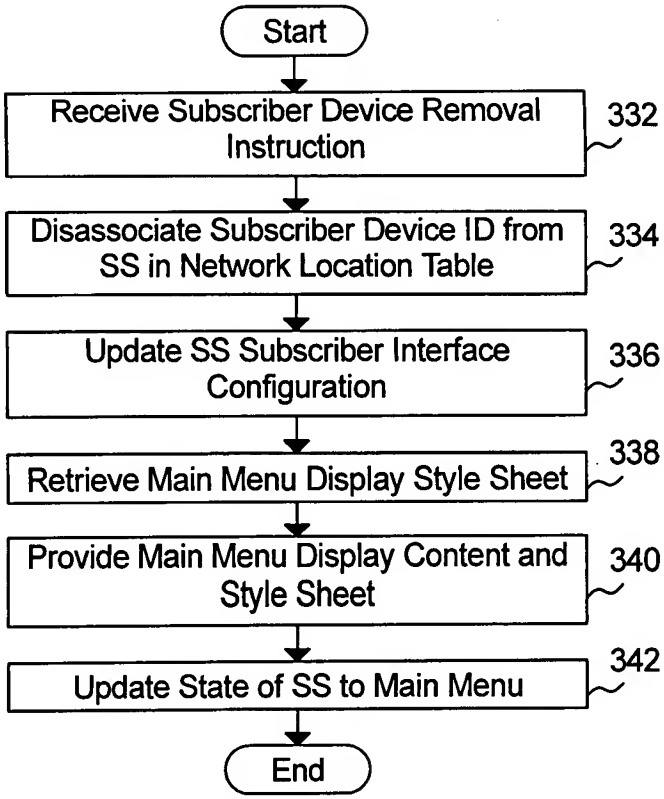

Figure 9c

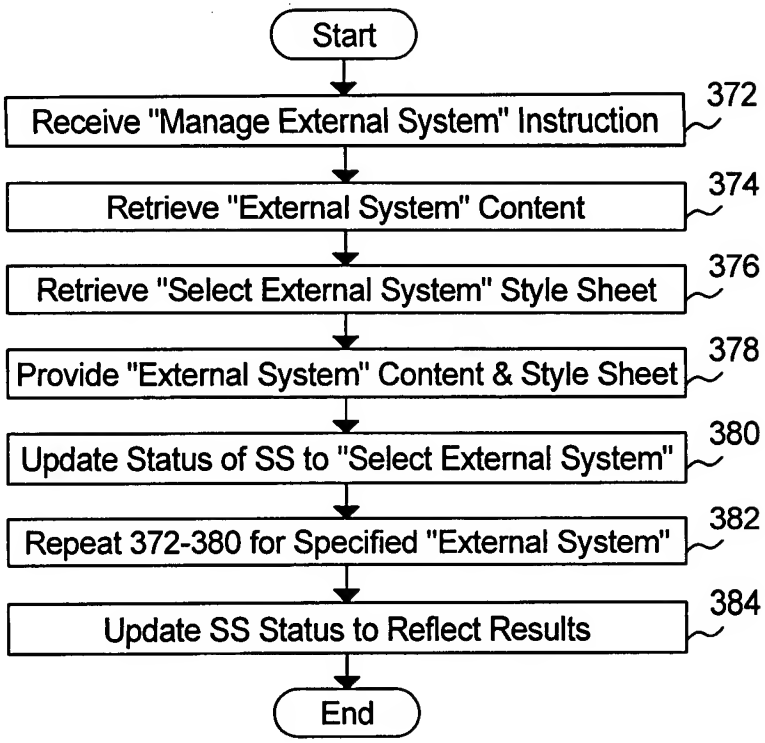

Figure 9d

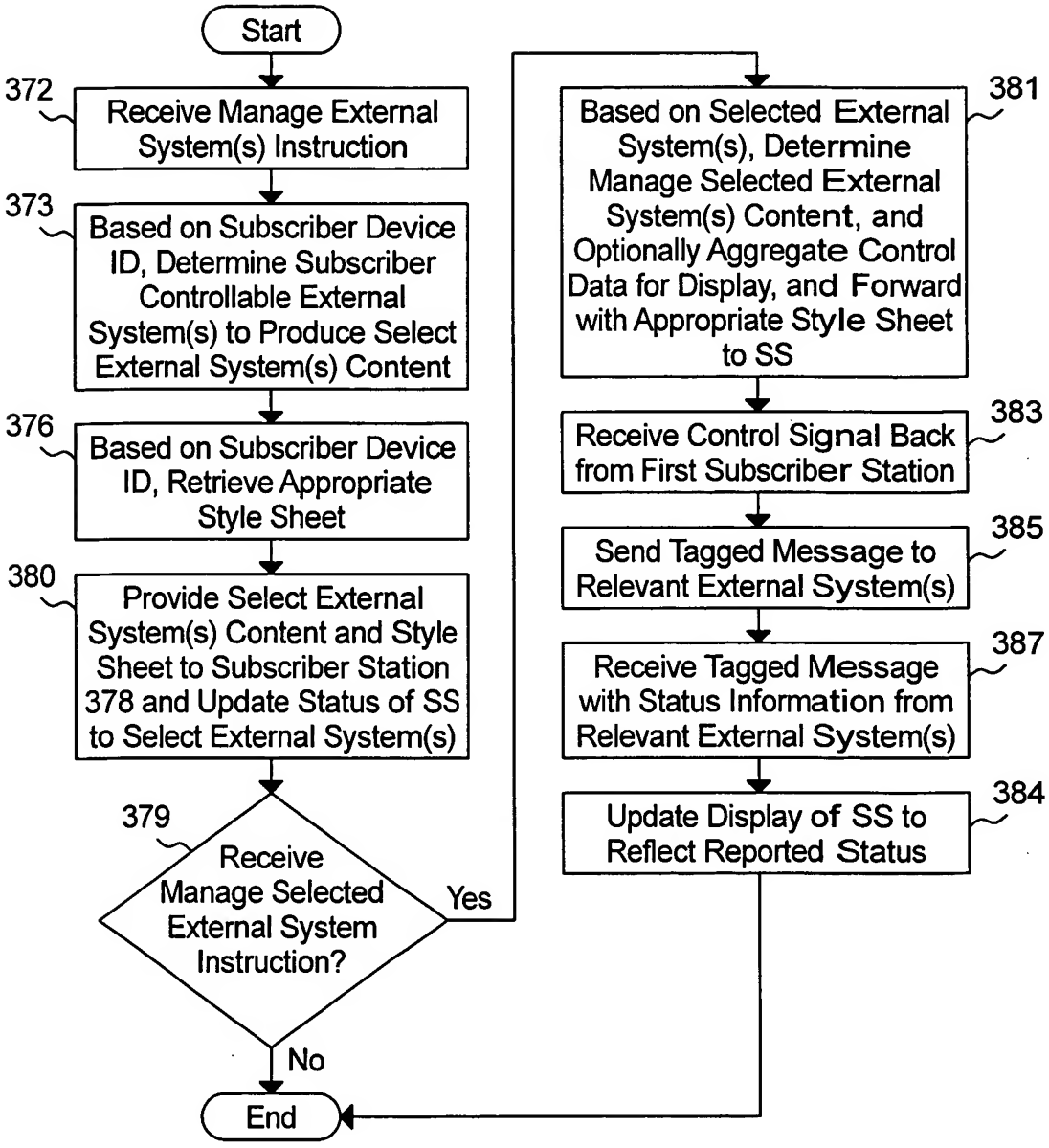
Start
372
Receive Manage External System(s) Instruction
373
Based on Subscriber Device ID, Determine Subscriber Controllable External System(s) to Produce Select External System(s) Content
376
Based on Subscriber Device ID, Retrieve Appropriate Style Sheet
380
Provide Select External System(s) Content and Style Sheet to Subscriber Station 378 and Update Status of SS to Select External System(s)
379
Receive Manage Selected External System Instruction?
Yes
No
End
381
Based on Selected External System(s), Determine Manage Selected External System(s) Content, and Optionally Aggregate Control Data for Display, and Forward with Appropriate Style Sheet to SS
383
Receive Control Signal Back from First Subscriber Station
385
Send Tagged Message to Relevant External System(s)
387
Receive Tagged Message with Status Information from Relevant External System(s)
384
Update Display of SS to Reflect Reported Status

Figure 9e

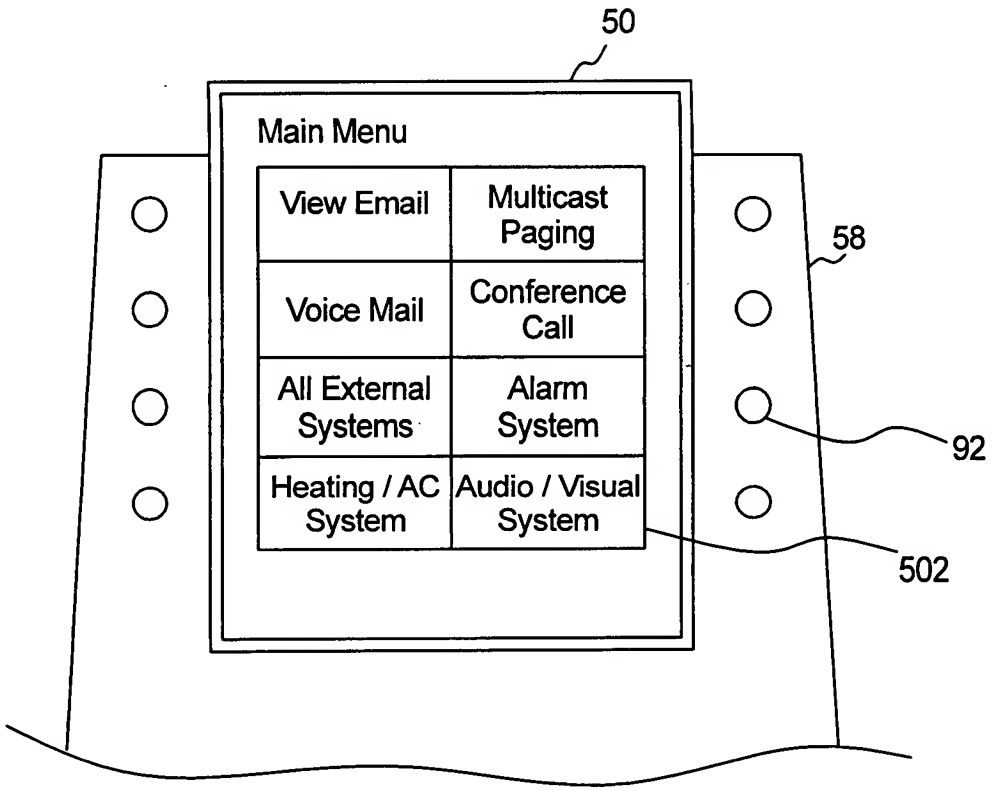

Figure 10a

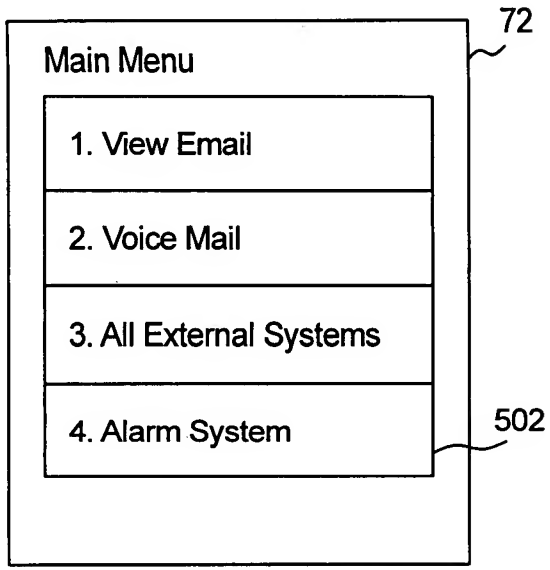

Figure 10b

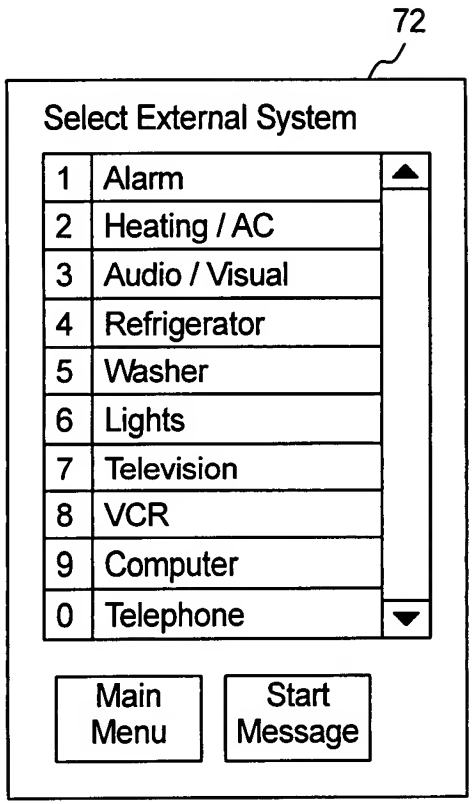

Figure 10c

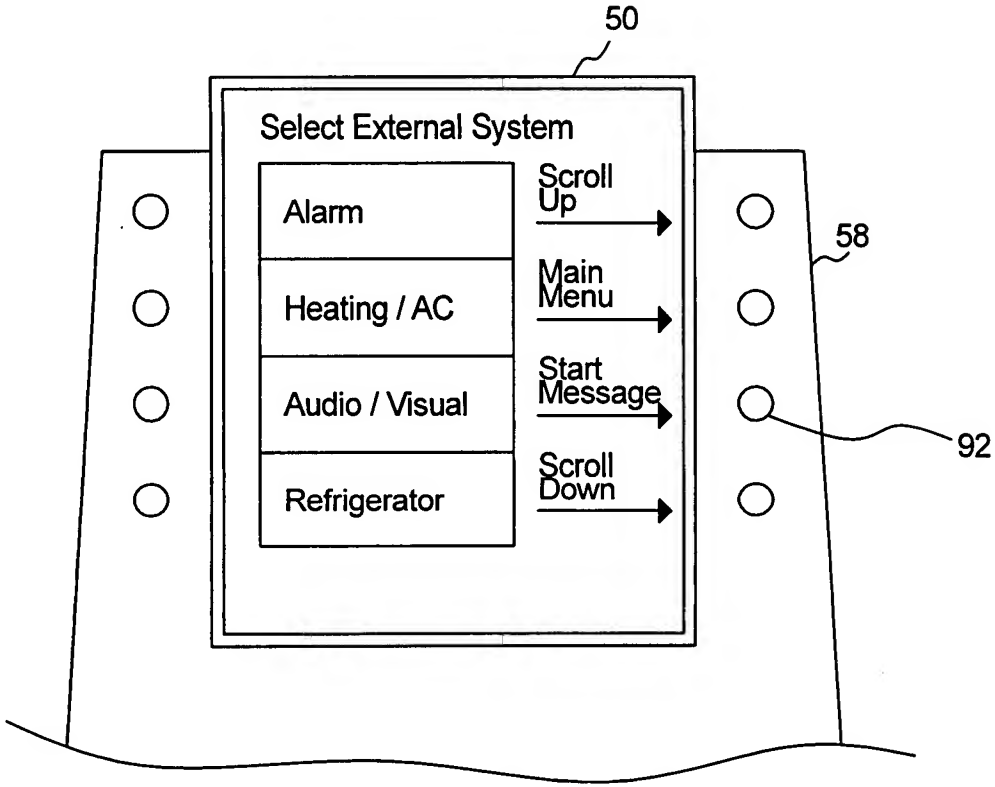

Figure 10d

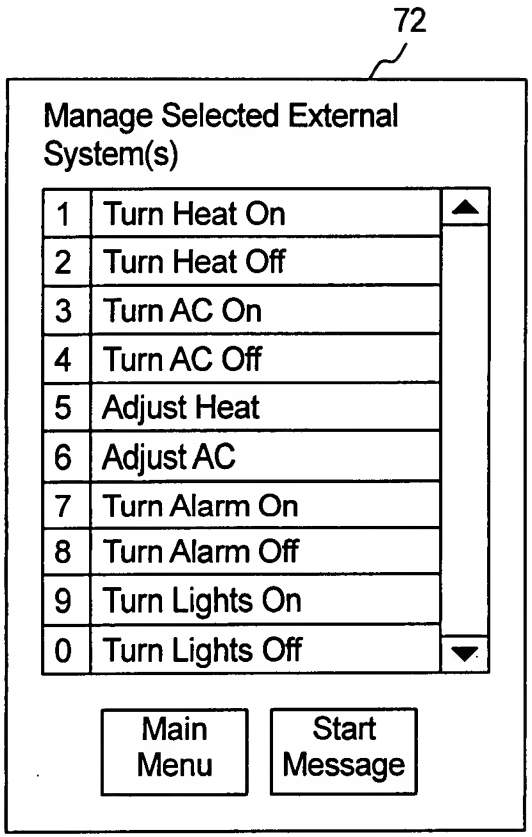

Figure 10e

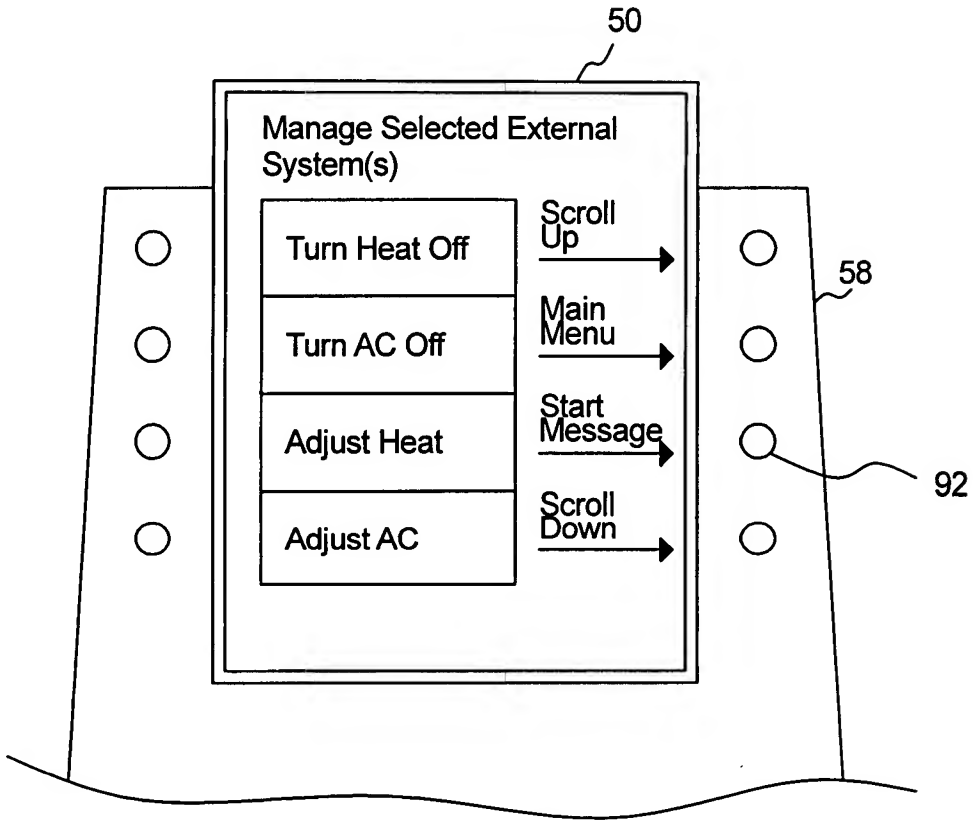

Figure 10f

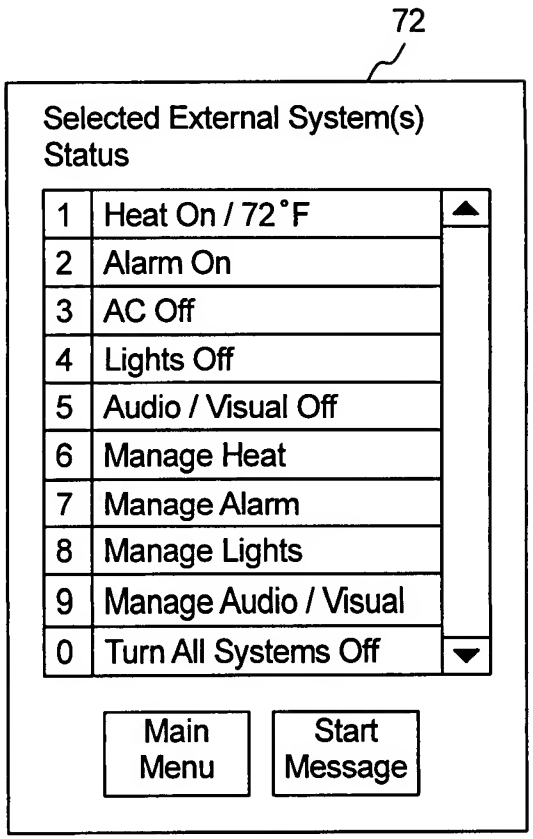

Figure 10g

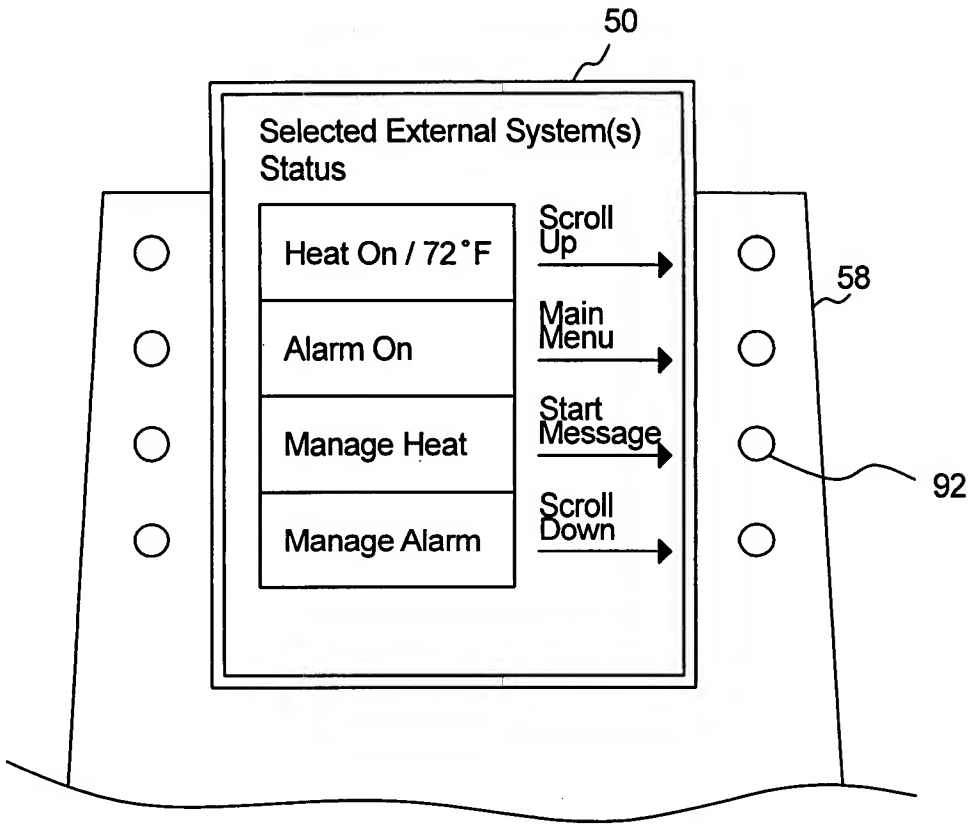

Figure 10h

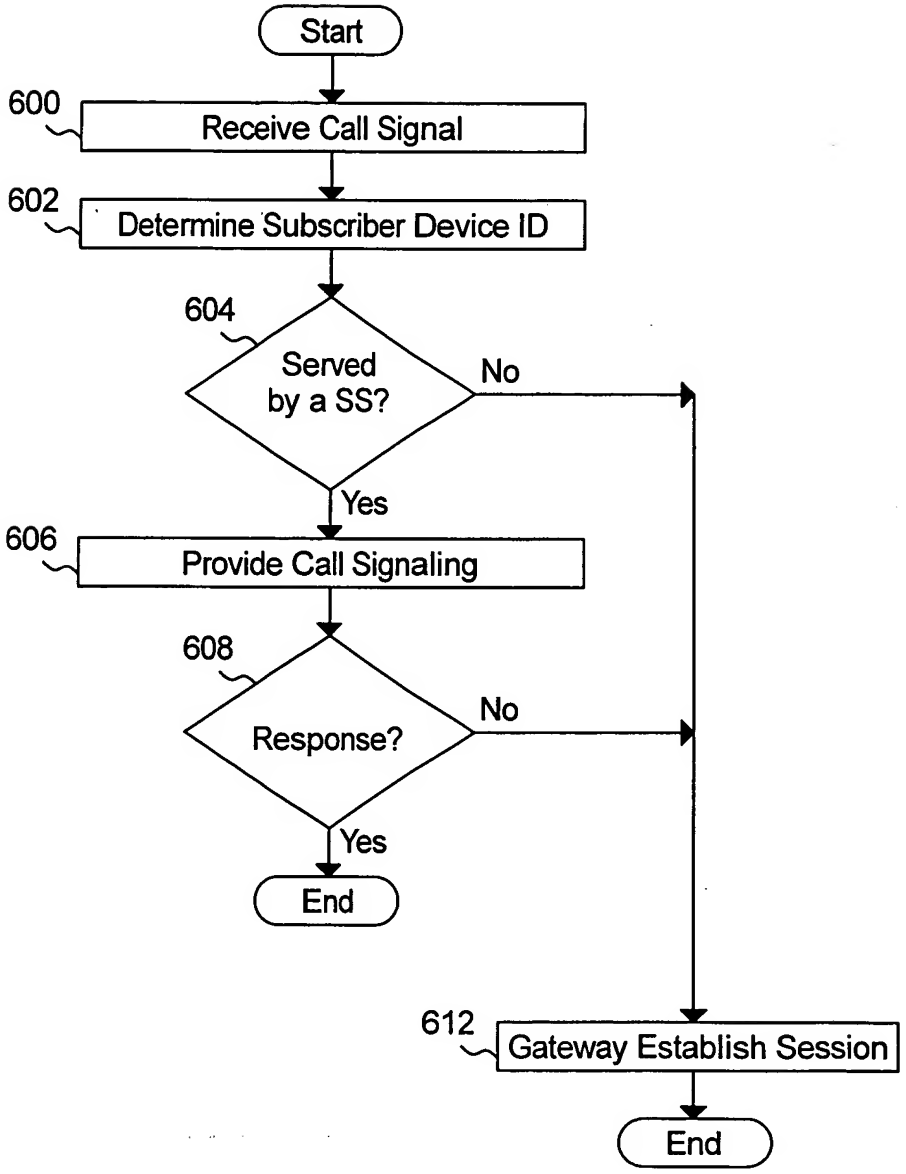
Start
600
Receive Call Signal
602
Determine Subscriber Device ID
604
Served by a SS?
No
Yes
606
Provide Call Signaling
608
Response?
No
Yes
End
612
Gateway Establish Session
End

Figure 11